

--32. A thin film transistor comprising an activation layer produced by a process comprising the steps of:

forming on a surface an intrinsic or substantially intrinsic silicon semiconductor film containing therein carbon, nitrogen or oxygen at a concentration of 5×10^{19} atoms/cm³ or less; and

irradiating said entire semiconductor film with a laser beam or a light having a strength equivalent to the laser beam with melting the semiconductor to increase the degree of crystallinity thereof.

33. A thin film transistor comprising:

a channel semiconductor layer;

a gate insulating layer contacting said channel layer; and

a gate electrode adjacent to said channel layer with said gate insulating layer therebetween,

wherein said channel semiconductor layer comprises a non-single crystalline silicon semiconductor layer containing oxygen at a concentration 1×10^{19} atoms/cm³ or less and said semiconductor layer shows a Raman shift at a wavenumber of 512 cm⁻¹ or higher.

34. A thin film transistor comprising:

a channel semiconductor layer;

a gate insulating layer contacting said channel layer; and

a gate electrode adjacent to said channel layer with said gate insulating layer therebetween,

wherein said channel semiconductor layer comprises a non-single crystalline silicon semiconductor layer containing oxygen at a concentration